

belly-colour, as in *trinitatis*. Tail, apart from the furry basal portion (which is like the back), wholly white, or with a few inconspicuous dark marblings near its base.

Dimensions of the type (measured on the skin):—

Head and body 210 mm.; tail 300; hind foot (s. u.) 32; ear 32.

Skull: greatest length 48; basal length 44; zygomatic breadth 27·5; combined length of three anterior molariform teeth 7·1.

Hab. Maripa, Caura Valley, Lower Orinoco.

Type. Adult male. B.M. no. 4. 5. 7. 42. Original number 376. Collected 26th October, 1903, by Mr. S. M. Klages.

This opossum agrees in size with the Trinidadian *C. trinitatis* and its Venezuelan relative *C. t. venezuelæ*, and is therefore far smaller than the Guianan *C. philander*, L., to which, however, it shows some affinity by its white tail, *trinitatis* and *venezuelæ* both having this organ brown, with at most a few lighter marblings. Its short close fur will also distinguish it from its Venezuelan neighbour.

VII.—On the Fishes taken by the 'Oceana.'*

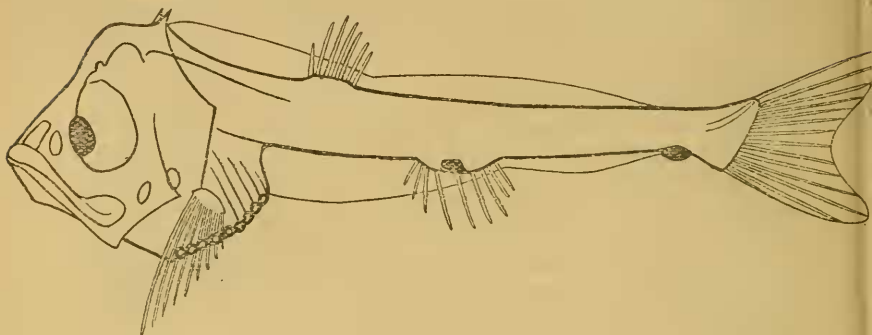
By E. W. L. HOLT and L. W. BYRNE.

ONLY six specimens of fish, all very young, were received from the 'Oceana,' viz. :—

	Length.	Station.	
STERNOPTYCHIDÆ.			
<i>Argyropelecus hemigymnus</i> , Cocco..	7·25 mm.	5j	1510-0 fath.
<i>Genostoma microdon</i> , Gthr.	33 mm.	4f	1275-0 fath.
SYNGNATHIDÆ.			
<i>Nerophis æquoreus</i> , L.	70 mm.	4f	1275-0 fath.
? MACRURIDÆ.			
? <i>Macrurus</i> sp.	5·5 mm.	5d	950-0 fath.
” ”	5·5 mm.	5e	1070-0 fath.
PLEURONECTIDÆ.			
? <i>Hippoglossus vulgaris</i> , Flem.	10·5 mm.	5l	1710-0 fath.

* For details of the voyage and of the method of capture see 'The Geographical Journal,' vol. xiii. (1899) p. 147.

All the hauls above mentioned were made on the 21st November, 1898. Station 4 was in $52^{\circ} 27' 6''$ N., $15^{\circ} 40'$ W., and Station 5 in $52^{\circ} 18' 1''$ N., $15^{\circ} 53' 9''$ W., and both stations were thus within the British Area as defined by Canon Norman.



Argyropelecus hemigymnus. $\times 16$.

Argyropelecus hemigymnus, Cocco.

Probably the most interesting specimen captured by the 'Oceana' is a larva of this species 6.75 mm. in length without the middle caudal rays (which are about .5 mm. long) and 2.75 mm. from the snout to the anus. A marginal larval fin still persists, but the rays of the unpaired fins of the adult are already well developed; the marked separation between the abdominal and caudal regions, which is characteristic of older specimens, is, even at this age, very noticeable, but the caudal region is proportionately much longer than in the adult.

There are signs of developing photophores on the abdomen in positions which correspond roughly to those occupied by the photophores of the adult, a single large photophore near the middle of the base of the anal fin, and another near the ventral margin of the caudal peduncle. The pectoral fins are well developed and nearly as long as the abdominal portion of the body. There is no sign of any ventral fin.

The net in which this specimen was captured fished from 1510 fathoms to the surface, and it is impossible to draw any conclusions as to the vertical range of the species. The locality in which the 'Oceana' larva was taken is well within the known horizontal range of the species, which has been taken in the Mediterranean and on both sides of the North Atlantic, as far north in the Eastern Atlantic as the

Faroe Channel. It has already been taken in British waters by the 'Flying Fox' (Günther, Ann. & Mag. Nat. Hist. ser. 6, iv. p. 415, 1889).

It seems to us by no means improbable that *A. hemigymnus*, Cocco, may only be the young of *A. Olfersi*, Cuv.; such specimens of the former as we have seen are all smaller than the smallest specimen of the latter of which we can find any record, and the differences relied on to separate the two species—namely, (a) the greater length of the caudal region and (b) the proportionately longer pectoral fins of *A. hemigymnus*—appear to be characters which may well be only the signs of a transition from such a larva as is now under consideration to the adult *A. Olfersi*. We have not at present access to sufficient material to do more than suggest the possible identity of the two species.

Gonostoma microdon, Günther.

A small *Gonostoma*, 33 mm. in length, although somewhat damaged, may be identified with reasonable certainty as belonging to this species. *G. microdon* has an almost cosmopolitan distribution, and, although it appears to be by no means uncommon in the deeper parts of the North Atlantic, the present record is the first from the British Area. It is impossible to say at what depth the present specimen was taken, as the net containing it fished from 1275 fath. to the surface; its condition suggests that it may have been taken at a considerable depth.

Nerophis æquoreus, L.

A single specimen 70 mm. in length was taken at Station 4f in a net which fished from 1275 fathoms to the surface; there is nothing to show at what depth the specimen was taken. Further specimens of this species have been captured in deep water on the Porcupine Bank by the Department of Agriculture for Ireland's S.S. 'Helga,' and in the Bay of Biscay by H.M.S. 'Research,' and we refrain from dealing fully with the question of the occurrence of *N. æquoreus* in deep water until the further material thus obtained has been worked out.

At a length of 70 mm. the young *N. æquoreus* still retains a vestige of pectoral fins; it differs markedly from the adult and resembles a *Syngnathus* in that the longitudinal ridges of the body are well marked and are prolonged into backwardly directed spines at the posterior edge of each body-ring, so that the postanal portion of the body has a serrated appearance. The smooth and rounded appearance of the adult

does not seem to be attained until a length of more than 100 mm. is reached.

The circumstances under which the "Porcupine Bank" adults were captured and the fact that a specimen was found in the stomach of a bottom-haunting fish (*Scyllium canicula*) at the same place indicate that this species may be a normal inhabitant of the bottom at considerable distances from land if not at great depths.

An adult female from that locality is about 20 cm. in length and an ovigerous male measures about 15 cm. It seems to us that they really represent a distinct variety of the species; but beyond the smaller size we can seize on no character susceptible of intelligible diagnosis.

? *Macrurus* sp.

Two considerably damaged larvæ, with the yolk nearly absorbed and the mouth apparently functional, may possibly be Macrurids. Each is about 5.5 mm. in total length and about 1.75 mm. in preanal length; the postanal part of the body is very elongate and slender. Neither is in a condition to admit of a detailed description being given.

? *Hippoglossus vulgaris*, Flem.

A vitelligerous larva, with a total length of 10.5 mm. and a preanal length of 4 mm., appears to be a Pleuronectid; the body-segments cannot be counted with great accuracy, but probably number about forty-eight; the yolk-sac is still very large and the mouth not yet functional. The specimen is somewhat damaged and darkly stained by the preserving medium. The marginal larval fin—whether naturally or otherwise—appears to be much vacuolated, especially dorsally, while the only visible pigment consists of a few stellate chromatophores in the roof of the body-cavity.

If this larva is correctly identified as a Pleuronectid, it can only be attributed to the halibut, both on account of its size and by a process of elimination. We are unaware of any description of a larval halibut* which can be used for purposes of comparison, and our identification must for the present remain tentative only. The specimen is not in a condition to render a detailed description useful.

* We have already (Department of Agriculture for Ireland, Report on Fisheries for 1901, pt. ii. p. 67 [1903]) given our reasons for regarding the larva tentatively attributed to the halibut by Petersen (Rep. Danish Biological Station, iv. p. 130 [1893]) as a young *Pleuronectes cynoglossus*, and we think that the larval forms since described by Kyle (M. B. A. Journal, vi. p. 618 [1903]) as *H. vulgaris* or *P. cynoglossus* are also referable to the latter species.